CLAIMS

1. A speaker comprising:

a magnetic circuit having a magnetic gap, a top surface, and a bottom surface;

a voice coil body having a bobbin and a coil section, the coil section being movable in the magnetic gap;

a diaphragm of which inner periphery is coupled to an outside of the voice coil body, the diaphragm having a front surface and a back surface;

a frame for storing the diaphragm;

a first edge for coupling an outer periphery of the diaphragm to the frame;

a suspension holder of which inner periphery is coupled to the voice coil body between the back surface of the diaphragm and the top surface of the magnetic circuit; and

a second edge for coupling an outer periphery of the suspension holder to the frame,

wherein

the diaphragm has a bent section between the outer periphery and the inner periphery,

a part from the bent section to the outer periphery is conical, and

the diaphragm is coupled to the suspension holder at the bent section.

2. A speaker according to claim 1,

wherein a part from the inner periphery to the bent section has one

shape of a plane shape, a conical shape, and an inverted conical shape.

3. A speaker according to claim 1,

wherein the diaphragm has the bent section on the outside of a central part between the inner periphery and the outer periphery.

4. A speaker according to claim 1,

wherein the diaphragm has higher density on the outer peripheral side of the bent section than on the inner peripheral side of the bent section.

5. A speaker according to claim 1,

wherein the bobbin and the suspension holder are made of metal material.

6. A speaker according to claim 1,

wherein the suspension holder is made of pulp.

7. A speaker according to claim 1,

wherein the first edge and the second edge are made of urethane.

8. A speaker according to claim 1, wherein

the first edge has a shape where the first edge projects toward the front surface of the diaphragm, and

the second edge has a shape where the second edge projects toward the back surface of the diaphragm.

9. A speaker according to claim 1, wherein

the first edge has a shape where the first edge projects toward the back surface of the diaphragm, and

the second edge has a shape where the second edge projects toward the front surface of the diaphragm.

10. A speaker according to claim 1,

wherein the first edge and the second edge have substantially similar elastic modulus.

11. A speaker according to claim 1,

wherein a coupling position between the second edge and the frame is set between a top surface position and a bottom surface position of the magnetic circuit.

12. A speaker according to claim 1 further comprising a dustproof net,

wherein the inner periphery of the dustproof net is coupled to the voice coil body between the suspension holder and the top surface of the magnetic circuit.

13. A speaker according to claim 1 further comprising another dustproof net, wherein

the frame surrounds the magnetic circuit and has a ventilation hole in a surface facing the bottom surface of the magnetic circuit, and

the dustproof net covers the ventilation hole.

14. A speaker according to claim 1,

wherein the suspension holder has an opening in one of the top

surface and a side surface.

15. A speaker according to claim 1,

wherein the top surface of the suspension holder is a corrugation surface.

16. A speaker according to claim 1,

wherein the frame has an opening between a coupling section of the first edge and a coupling section of the second edge.

17. A speaker according to claim 1 further comprising an elastic body,

wherein the diaphragm is coupled to the suspension holder via the elastic body.

18. A speaker according to claim 17,

wherein the elastic body is a silicon-based adhesive.

19. A speaker according to claim 1,

wherein the suspension holder has higher density on the outer peripheral side of a coupling section between the diaphragm and the suspension holder than on the inner peripheral side of the bent section.

20. A speaker according to claim 1,

wherein the suspension holder has a shape curved in the outer peripheral direction on the outer peripheral side of a coupling section between the diaphragm and the suspension holder.

21. A speaker according to claim 1, wherein

the suspension holder has the outer periphery having a plane section and having L-shaped cross section, and

the second edge is coupled to the plane section.

22. A speaker according to claim 1, wherein

the suspension holder has the outer periphery having L-shaped cross section, the outer periphery having a plane section and an erect section, and

the second edge is coupled to the plane section and the erect section.

23. A speaker according to claim 1, wherein

the second edge has an upper edge section and a lower edge section, and

the upper edge section and the lower edge section grapple the outer periphery of the suspension holder.

24. A speaker according to claim 1, wherein

the suspension holder has an L-shaped cross section and has a folded section at a tip of the suspension holder.

25. A speaker according to claim 1, wherein

the diaphragm has a folded section at a tip of the diaphragm.

26. A speaker according to claim 1 further comprising a dust cap,

wherein the dust cap is coupled to the voice coil body and the diaphragm.

27. A speaker according to claim 1,

wherein the dust cap has a rib, and the rib is coupled to the diaphragm.

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